Abstract

This paper proposes a new image denoising algorithm using wavelets. It utilizes the pertinence of the neighbor wavelet coefficients by using the block thresholding scheme. Proposed enjoys a number of advantages over the other conventional image denoising methods. The aim of this paper is to investigate a multiresolution technique and the corresponding thresholding methods for image denoising. Consideration may also be given to applying some enhancement techniques to the existing methods so as to achieve both noise reduction and feature preservation. The noise acceptance and rejections rates have been computed for the existing techniques and the newly developed technique. The proposed technique provides better results with the soft thresholding and block thresholding based on parameters, MSE and PSNR.
An Improved Method of Removing Gaussian Noise for a Gray Scale Image using Multiresolution Technique


Index Terms

Computer Science  Image Processing

Keywords

Image Denoising  Wavelet Transform  Soft Thresholding  Block Thresholding  Noise Variance